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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): 112740-344

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Application Number	Filed
10/009,858	December 22, 2001

First Named Inventor: Bernhard Raaf

Art Unit	Examiner
2617	Matthew C. Sams

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

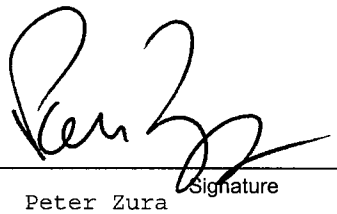
I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒ attorney or agent of record. Registration number 48,196.

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 _____



Signature

Peter Zura
Typed or printed name

312-807-4208
Telephone number

September 20, 2007
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Bernhard Raaf
Appl. No.:	10/009,858
Conf. No.:	6325
Filed:	December 22, 2001
Title:	METHOD FOR CONTROLLING TRANSMISSION POWER IN A RADIO SYSTEM, AND A CORRESPONDING RADIO SYSTEM
Art Unit:	2617
Examiner:	Matthew C. Sams
Docket No.:	112740-344

MAIL STOP AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Sir:

This request is submitted in response to the Final Office Action dated April 20, 2007, and Advisory Action dated August 20, 2007. This request is filed contemporaneously with USPTO form PTO/SB/33, "Pre-Appeal Brief Request for Review" and form PTO/SB/31, "Notice of Appeal."

Remarks begin on page 2 of this paper.

REMARKS

Claims 25-32, 34-38, 40-43 and 45-48 are pending in the present application. Independent claims 25 and 37 are the focus of this request. As is explained below, Appellant respectfully submits the current rejections are improper and should be withdrawn.

Claims 25-32, 34-43, and 45-48 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Uesugi et al.* (EP 0893,889) in view of *Hogan* (US Pub 2001/0018741). As was previously argued by Appellant, the cited art, alone or in combination, fails to teach "embedding the power control information in a timeslot structure together with further data to be transmitted in the same timeslot to said transmitter; coding, in the receiver, the power control information in one time slot in a manner where the power control information is coded, with the addition of redundancy, together with the further data to be transmitted in the same time slot to form a common data word, with at least one bit value in the data word depending on the power control information and on the further data; transmitting the coded power control information in one timeslot to the transmitter, together with the further data to be transmitted in the same time slot; and setting, in the transmitter, the transmission power as a function of the transmitted coded power control information" as recited in claim 25 and similarly recited in claim 37. A brief explanation of the underlying technology was put forth by the Appellant in the response dated July 20, 2007 (see page 7, 4th paragraph).

In contrast to the present claims, Uesugi discloses a method and an apparatus for adjusting the transmitting power in a CDMA communication system, where (1) a rate judging apparatus judges the rate of transmission data by a first slot of a transmission frame, (2) a level controller which carries out processing by which the transmission power of transmission control information given to the top of the respective slots after the second slot is made identical to that of the transmission data, and (3) a transmitter transmits frames processed by uniform transmission power responsive to the result of the judgment (col. 3, lines 16-26). Under this arrangement, transmission frames are purportedly transmitted with uniform transmission power regardless of the transmission data rate (col. 4, lines 28-35).

In col. 19, lines 48-51 and FIG. 16B, Uesugi discloses a case where the transmission data rate is low, thus prompting the CDMA communication apparatus to *repeatedly transmit*

transmission data along with the controlling information and transmission data (see also col. 6, lines 33-42). This is done according to Uesugi to account for transmission data (1200) that is spread-controlled by spread controller 1201. Thus, if the transmission data rate is low, the transmission data is processed so that it has a small amplitude and a long symbol length (hence the repeating), and if the transmission data rate is high, the transmission data is processed so that it has a large amplitude and a short symbol length.

The Final Office Action and Advisory Action allege that col. 12, line 41 - col. 13, line 2 (FIGs. 16A-B) discloses the feature of "embedding the power control information in a timeslot structure together with further data to be transmitted in the same timeslot." Applicant respectfully submits this is incorrect. The Disclosure in Uesugi clearly shows that the time multiplexer 1203 multiplexes the pilot symbol 1202 and the power controlling signal (TPC) 1207, and the transmission data is CDMA-modulated by CDMA modulator 1204, amplified, and transmitted through antenna 1206 (col. 12, lines 35-47). It is apparent to the Applicant that the CDMA modulation of Uesugi does not represent the encoding process described in the present claims, where the receiver codes the power control information in one time slot in a manner where the power control information is coded, with the addition of redundancy, together with the further data to be transmitted in the same time slot to form a common data word, with at least one bit value in the data word depending on the power control information and on the further data.

Under the claimed configuration, a number of bits are encoded together. As an example, a number of output bits are formed dependent on the number of input bits wherein at least a part of the output bits are dependent on a number of input bits (recited in the claims as "at least one bit value in the data word depending on the power control information and on the further data"). As a result of coding, a common data word (e.g., block code) is formed, where one bit value in the data word is dependent upon the power control information and on the further data Also, the claim provides for redundant encoding. The Uesugi reference is silent in this regard and instead teaches combined multiplexing of a spread code provided by the spread controller (1201). Uesugi clearly states that multiple time slots are used for the different signals (see, e.g., col. 19, lines 1-4: [i]f the data rate is low, pilot symbol 4051, TPC signal 4052 or data symbol 4053 is transmitted by the same transmission power in slots including and after the second slot as shown in FIG. 14G"; see also col. 18, lines 1-6, 29-30, 38-39).

Also, no redundancy is disclosed in Uesugi, *with respect to the one time slot* - in col. 19, line 48 - col. 20, line 9, the reference clearly states that the *entire transmission data* is retransmitted regularly to establish a proper data rate. The Advisory Action states that "it is not clearly claimed what is redundant" (see page 2), and has apparently interpreted the repeated transmission of data as being equivalent to "redundancy" (col. 19, lines 46-52). However, such an interpretation has no relation to the present claims, where the redundancy is related to the encoding in the receiver. It is not understood by Appellant how this feature is taught in Uesugi simply by retransmitting data, based on the determined data rate. Uesugi states that "by the same transmission data being repeated, the receiving side is able to judge that the transmission data rate is low" (col. 19, line 57 - col. 20, line 1). This clearly shows that the receiver does not "encode" anything, merely receives the data and determines whether or not the data rate is low or high (see col. 3, lines 16-26; col. 20, lines 1-6).

Also, as the Office Action has conceded, Uesugi fails to teach or suggest "one bit value in the data word depending on the power control information and on the further data."

Regarding Hogan, the application discusses XOR logic, where error correction bits are added to a code word in an ECC block related to a data storage computer system (see Abstract). While ECC bits are dependent on the data word, the bits are taken from an encryption mask ([0027]) and appended to the codeword ([0036-37]). Aside from the isolated fact that ECC bits are related to the codeword through the XOR function, Hogan clearly does not disclose that one bit value in the data word depends on the power control information and on the further data.

Moreover, there is no apparent reason why one skilled in the art would combine Hogan and Uesugi in the manner suggested in the Office Action. Contrary to the Office Action's assertion that Hogan is in an analogous art, Applicant respectfully submits that the two references are disparate. Hogan deals with encrypted "heroic data recovery" related to computer storage systems, where destroyed data may be recovered (see [0006]). As discussed above, Uesugi deals with adjusting the transmitting power in a CDMA communication system. Hogan also teaches that the ECC blocks are used in an encrypted manner to allow secure data recovery (see, e.g., claim 1). As discussed above, Uesugi relies on retransmission of data blocks to establish a proper data rate. Paradoxically, the Office Action asserts that incorporating Hogan into Uesugi would "reduce the need for retransmission of lost data," which runs expressly counter to the teaching in Uesugi, since retransmission is needed to be able to distinguish

between different data rates (see col. 19, line 57 - col. 20, line 6). Furthermore, the Office Action fails to explain the manner in which an encrypted XOR function would conceivably operate in Uesugi - which bits are to be XORed? If the data is encrypted, how does Uesugi effectively deal with each re-transmission and related multiplexing? It appears to the Applicant that such a combination is not possible.

The Advisory Action alleges that "Uesugi obviously already handles 'encrypted data'" (last paragraph), and provides an alleged example of an encryption scheme that is as "simple as representing a 1 as a 1 and a 0 as a 1 (i.e., coding for digital communication)." Applicant respectfully submits that the relevance of this passage is entirely unclear, and it is not understood what type of "encryption" this refers to. Even assuming that the example represents some form of encryption, how would this "encryption scheme" be implemented in Uesugi? How would the decryption be implemented among the multiple devices? What bits would be subject to this encryption?

For at least these reasons, Applicant respectfully submits the rejections are improper and should be reversed. In light of the above, Applicant respectfully submit that claims 25-32, 34-38, 40-43 and 45-48 are allowable. Applicants respectfully submit that the patent application is in condition for allowance and request a Notice of Allowance be issued. The Commissioner is authorized to charge and credit Deposit Account No. 02-1818 for any additional fees associated with the submission of this Response. Please reference docket number 112740-344.

Respectfully submitted,
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Dated: September 20, 2007